

SAF-RC-001
Industrial Hygiene Sampling
FINAL DATA

NO DISTRIBUTION REQUIRED

COMMENTS:

SDG 06I-0512-01 SAF-RC-001

Rad only ☒ Chem only Rad & Chem

☒ Complete Partial

300 Area 303M Bldg

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Cover Page

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Report Identification Number: 06I-0512-01
Subcontract Number: 0000X-BO-G0058-B-Mod#4
Name of Industrial Hygienist: Denise A. Pitts / Henry W. Ruby
Laboratory Identification Number: DCHM
SAF#: RC-001 / R300XX J451
Payroll#: 73338

Sample Information

Sample Date	Customer Sample Number	Laboratory Sample Number	Method	Analytical Batch Identification	Sample Matrix
07 Feb 2006	J11461	06I04263	NMAM 7300M	G061700Y	G WIPE
07 Feb 2006	J11462	06I04264	NMAM 7300M	G061700Y	G WIPE
07 Feb 2006	J11463	06I04265	NMAM 7300M	G061700Y	G WIPE

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Name: Joanna C. Sanchez
Title: Chemist
Date: February 09, 2006



Case Narrative Page

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General Set Information: There are 4 samples in set 06I-0511-01 and 3 samples in set 06I-0512-01 which were analyzed for beryllium on Ghost Wipe. No problems were encountered with the receipt of these samples and no contact with the CTR was required.

Method Summary: Samples were transferred to 50 ml centrifuge tubes and digested in the presence of 5 mL of nitric acid and 5 mL of ASTM Type II water. Samples were digested in a hot block set at 110°C for 60 minutes. Samples were then diluted to a 25 mL volume with ASTM Type II Water. Samples were shaken and delivered for ICP analysis.

Sample Preparation: All samples were prepared in accordance with DCL SOP "IH-AN-021" and NIOSH method NMAM 7300 modified for hot block digestion.

Holding Times: The holding times were met for both sample preparation and analysis.

Instrument Calibration: Instrument calibration was performed in accordance with NIOSH method NMAM 7300.

Initial and Continuing Calibration Verification Analysis: Beryllium recoveries in all Initial Calibration Verification (ICV) and Continuing Calibration Verification (CCV) samples are within the quality control limits of +/- 10%.

Initial and Continuing Calibration Blank Analysis: No beryllium results were found in the Initial Calibration Blank (ICB) or Continuing Calibration Blanks (CCB) at levels above the Contract Required Detection Limits (CRDL) of 0.01 ug/sample.

Method Blank Analysis: No beryllium was found in any of the media blank samples above the Contract Required Detection Limit (CRDL).

Dilution(s): None.

Laboratory Control Sample and Duplicate Analysis: One Laboratory Control Sample (LCS) and one Laboratory Control Sample Duplicate (LCSD) were prepared and analyzed with the sample batch. The LCS results were within the control limits of +/- 20%. The Relative Percent Difference (RPD) between the LCS and the LCSD was within the control limit of 20%.

Replicate Analysis: One sample in this batch was replicated. The RPD between the sample and the replicate was within the control limit of 20%. If the result of the sample or replicate is below the CRDL, replicate analysis is negligible.

Flagging Codes: None

Nonconformance/Corrective Action Report (NC/CAR): N/A

Sample Calculation: The final results are calculated by the following equation:

Final result for aqueous samples ($\mu\text{g/sample}$) = (A) x (B) x (C)

Where:

A = Analyte concentration from instrument determination ($\mu\text{g/L}$)

B = Concentration factor from sample preparation

= $\frac{\text{Final Volume of Digestate (L)}}{\text{Sample}}$

Sample

C = Dilution performed at time of analysis

Example Calculation: $(1 \mu\text{g/L}) \times (0.025 \text{ L/sample}) \times (1) = 0.025 \mu\text{g/sample}$

Miscellaneous Comments: None



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Customer Sample Number	Laboratory Sample Number	Date Analyzed	Beryllium $\mu\text{g}/\text{sample}$	
J11461	06I04263	08 Feb 2006	<0.01	U
J11462	06I04264	08 Feb 2006	<0.01	U
J11463	06I04265	08 Feb 2006	<0.01	U
Limit of Detection (LOD)			0.01	
Required Detection Limit (RDL)				

U - Parameter not detected above LOD.

J - Parameter between LOD and RDL.



QC Summary Page

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Name of Industrial Hygienist: Denise A. Pitts / Henry W. Ruby
Laboratory Identification Number: DCHM
SAF: RC-001 / R300XX J451
Payroll#: 73338

Batch ID: G061700Y

QC Sample ID	QC Type	Analyte	Units	Result	Parent Result	Target	Percent Rec.	Relative Percent Diff.
BL-241083-1	MB	Beryllium	µg/sample	ND	NA	NA	NA	NA
QC-241083-1	LCS	Beryllium	µg/sample	10.9	NA	10.0	109.	NA
QD-241083-1	LCSD	Beryllium	µg/sample	11.2	10.9	10.0	112.	2.48

MB - Method Blank

LCS - Laboratory Control Sample

LCSD - Laboratory Control Sample Duplicate

MS - Matrix Spike

MSD - Matrix Spike Duplicate

LD - Laboratory Duplicate

NA - Not Applicable

ND - Parameter not detected above LOD

$LCS, LCSD \text{ Percent Rec.} = (\text{Result} / \text{Target}) * 100.0$

$MS, MSD \text{ Percent Rec.} = ((\text{Result} - \text{Parent}) / \text{Target}) * 100.0$

$LCS, LCSD \text{ Relative Percent Diff.} = ((|\text{LCS} - \text{LCSD}|) / ((\text{LCS} + \text{LCSD})/2.0)) * 100.$

$MS, MSD \text{ Relative Percent Diff.} = ((|\text{MS} - \text{MSD}|) / ((\text{MS} + \text{MSD})/2.0)) * 100.$

$LD \text{ Relative Percent Diff.} = ((|\text{Parent} - \text{LD}|) / ((\text{Parent} + \text{LD})/2.0)) * 100$

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CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

Collector: <i>Al Schilling</i> Payroll #: 73338 Type of Sample: <i>Be Wipe</i> Shipped To: <i>De Chem</i> Special Handling and/or Storage: <i>SAH Lvl</i>		Company Contact: Denise A. Pitts and Henry W. Ruby Telephone No.: 531-1229 Project Coordinator: Jean H. Koster SAF No.: 9C-001 Method of Shipment: <i>Federal Express</i> Bill of Lading/Air Bill No.: <i>8544 9435 4748</i>		Data Transmitted: <i>2-11-06</i>
SPECIAL INSTRUCTIONS: All relevant COAs must be provided: <i>R303403451</i> ANALYSIS METHOD (SPECIFIC): <i>NIOSH 7300 R</i>				

SAMPLE NO.	MATRIX	SAMPLE DATE	VOLUME (L or A)	Comments	PRESERVATION (i.e. cooling required, etc.)						ANALYSIS						
					A	W1	W2	OTHER	Airborne	Lead	Beryllium	Mold	Lead	Wipe	Cd	Airborne	
111461	W	2-7-06	N/A	2-7-06 N/A Black						No	No	No	No	No	No	No	No
111462	W	2-7-06	N/A	2-7-06 N/A Black						No	No	No	No	No	No	No	No
111463	W	2-7-06	100	N/A						No	No	No	No	No	No	No	No

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WCH-SH-202 (08/29/2005)

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(SOMEONE) CUE-HS-HJM

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